

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

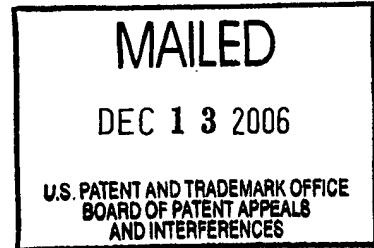
## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte OCTAVIUS J. MORRIS  
and WILHELMUS H.A. BRULS

Appeal No. 2006-3034  
Application No. 09/855,115

ON BRIEF



Before THOMAS, HAIRSTON, and JERRY SMITH, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

### DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-14.

### THE INVENTION

The disclosed invention pertains to a method and apparatus for video signal encoding and buffer management.

Representative claims 1 and 6 are illustrative:

1. A method for encoding of a digital video image signal in an encoder apparatus having a coding stage and an encoder buffer, the method comprising the steps of:
  - successively encoding image fields of the signal in compliance with a predetermined coding scheme;
  - reading the encoded field data into the buffer; and
  - subsequently reading the stored data out of the buffer at a bit rate determined at least partially by the fullness of the buffer;
  - wherein each image field is encoded as a series of slices each comprised of a predetermined number of successive lines of the field, with a predetermined number of data bits allocated for the encoding of a slice, and the encoded data for the slice is read into the encoder buffer and subsequently read out therefrom on completion of encoding of the slice.
6. A digital video image signal encoder apparatus comprising:
  - an encoding stage arranged to receive successive image fields of the signal and encode them according to a predetermined coding scheme; and

- a buffer coupled to receive encoded field data from the encoding stage and arranged to subsequently output the stored data at a bit rate determined at least partially by the fullness of the buffer;
- wherein the encoding stage is further arranged to encode each image field as a series of slices each comprised of a predetermined number of successive lines of the field and within a predetermined number of data bits allocated for the encoding of a slice, and the buffer is arranged such that the encoded data for the slice is read in thereto and subsequently read out therefrom on completion of encoding of the slice.

### **THE REFERENCES**

The examiner relies on the following references:

Dieterich	6,233,278	May 15, 2001 (filed Jul. 31, 2000)
Kato et al. (Kato)	6,535,556	Mar. 18, 2003 (division filed Dec. 10, 1997)

### **THE REJECTIONS**

The following rejections are on appeal before us:

1. Claims 1-4 and 6-10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Dieterich.
2. Claims 5 and 11-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Dieterich in view of Kato.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

## **OPINION**

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the briefs have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(vii)(2004). See also *In re Watts*, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

It is our view, after consideration of the record before us, that the evidence relied upon by the examiner does not support the examiner's rejection of claims 1-14. Accordingly, we reverse.

**Independent claims 1 and 6**

We consider first the examiner's rejection of independent claims 1 and 6 as being anticipated by Dieterich.

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. Perricone v. Medicis Pharmaceutical Corp., 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (internal citations omitted). To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376,

1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). Anticipation of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. Atlas Powder Co. v. IRECO, Inc., 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

With respect to independent claim 1, appellants argue that Dieterich does not disclose reading the stored data out of the buffer at a bit rate determined at least partially by the fullness of the buffer [brief, page 6, emphasis added]. With respect to independent claim 6, appellants argue that Dieterich fails to disclose a buffer coupled to receive encoded field data from the encoding stage and arranged to subsequently output the stored data at a bit rate determined at least partially by the fullness of the buffer [brief, page 8, emphasis added].

The examiner disagrees [answer, page 5]. The examiner notes that Dieterich shows buffer 690 (fig. 6) and buffer 714 (fig. 7) with arrows going in and out from the buffer(s) that indicate the data being read in and out is

being controlled by rate controllers 630 (fig. 6) and 710 (fig. 7), so as to prevent buffer overflow and/or underflow (see Dieterich, col. 3, lines 40-46, col. 6, lines 16-31 and 43-45) [answer, page 5].

In the reply brief, appellants assert that Dieterich's disclosure contradicts the examiner's position at col. 6, lines 24-29:

The rate control module 630 serves to monitor and adjust the bit rate of the data stream entering the FIFO buffer 690 to prevent overflow and underflow on the decoder side (within a receiver or target storage device, not shown) after transmission of the data stream [emphasis added in appellants' brief].

Appellants conclude that rate control module 690 writes data into the buffer at a bit rate such that a completely different buffer in a target receiver will not overflow or underflow, in direct contrast to reading data out of the buffer at a bit rate determined at least partially by the fullness of the buffer, as required by the language of the instant independent claims [reply brief, page 5].

After carefully considering all of the evidence before us, we agree with appellants that the Dieterich reference is substantially silent with respect to reading (i.e., outputting) the stored data out of the buffer at a bit rate determined at least partially by the fullness of the buffer, as required by the language of each independent claim [claims 1 and 6]. We find that to affirm the examiner on this record would require speculation on our part.

In particular, we note that in one embodiment Dieterich's rate control module 630 (fig. 6) uses side information to determine whether the buffer fullness level is at a state that will allow the use of a finer quantization scale [col. 6, lines 40-45]. Clearly, this portion of the reference fails to meet the language of the independent claims that requires reading (or outputting) stored data from the buffer at a bit rate determined at least partially by the fullness of the buffer. As pointed out by the examiner, fig. 6 shows an arrow to the right of buffer 690 that represents the compressed video signal as read from the rear the FIFO buffer. However, we find no disclosure in Dieterich that specifically describes how the bit rate of this output video signal is controlled [see e.g., col. 6, lines 18-23]. As pointed out by appellants, Dieterich specifically discloses that rate control module 630 serves to monitor and adjust the bit rate of the data stream entering FIFO buffer 690 [col. 6, lines 24-26]. Therefore, we find that Dieterich does not fairly disclose reading (i.e., outputting) the stored data out of the buffer at a bit rate determined at least partially by the fullness of the buffer.

Because Dieterich fails to disclose every element and limitation of the claimed invention, we agree with appellants that the examiner has failed to meet his/her burden of presenting a *prima facie* case of anticipation. Accordingly, we will not sustain the examiner's rejection of independent claims 1 and 6. Because we have reversed the examiner's rejection of each

independent claim, we will not sustain the examiner's rejection of any of the dependent claims under appeal. Therefore, we will reverse the examiner's rejection of dependent claims 2-5 and 7-10 as being anticipated by Dieterich and we will also reverse the examiner's rejection of dependent claims 5 and 11-14 as being unpatentable over Dieterich in view of Kato.

In summary, we will not sustain the examiner's rejection of any of the claims under appeal. Therefore, the decision of the examiner rejecting claims 1-14 is reversed.

REVERSED.

James D. Thomas  
Administrative Patent Judge

*[Handwritten signature of James D. Thomas]*

Kenneth W. Hairston  
Administrative Patent Judge

*[Handwritten signature of Kenneth W. Hairston]*

BOARD OF PATENT

## APPEALS AND

## INTERFERENCES

Jerry Smith  
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